

## **IN THE CLAIMS**

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-17 Canceled

18. (Currently Amended) A method for indirect tire pressure monitoring, the method comprising:

learning test variables (DIAG, SIDE, AXLE), which describe rotational movements of wheels;

learning at least one torsion natural frequency  $f_p$  for at least one tire from oscillation behavior of individual tires wherein during the learning

(1) initially only a rough position of the torsion natural frequency  $f_p$  is determined ~~in a wide frequency range, such as a frequency range of roughly 20 hertz to roughly 60 hertz, with a coarse frequency resolution, such as a frequency resolution of approximately 1 hertz, and~~

(2) subsequently a range is defined around the ~~approximate~~ position of the torsion natural frequency  $f_p$ , in which a precise position of the torsion natural frequency  $f_P$  is determined with a ~~fine~~ frequency resolution that is at least twice a first frequency resolution of the rough position of the torsion natural frequency  $f_p$ , ~~such as with a frequency resolution of approximately 0.5 hertz;~~

determining at least one shift of the torsion natural frequency  $\Delta f_P$  from at least one actually determined torsion natural frequency and from the at least one learnt torsion natural frequency; and

combining rolling circumference differences ( $\Delta\text{DIAG}$ ,  $\Delta\text{SIDE}$ ,  $\Delta\text{AXLE}$ ) with the at least one shift of the torsion natural frequency  $\Delta f_p$  in a joint warning strategy for detecting and warning of tire inflation pressure loss.

19. (Previously Presented) A method according to claim 18, wherein either of the learning operations is not started until an automatically or manually generated signal (reset).
20. (Previously Presented) A method according to claim 18, wherein one of the learning operations is executed while the tires heat up or cool down.
21. (Previously Presented) A method according to claim 20, wherein a complete heating or cooling of the tires is detected from a uniform increase or reduction of the torsion natural frequencies  $f_p$  of all tires to an almost constant final value.
22. (Previously Presented) A method according to claim 20, wherein a change of an outside or ambient temperature is evaluated with respect to the heating or cooling of the tires.
23. (Canceled)
24. (Previously Presented) A method according to claim 20, wherein a length of a vehicle immobilization time allows obtaining information about a condition of the tires.
25. (Previously Presented) A method according to claim 18, wherein one of the learning operations is executed in several different speed intervals, or wheel torque intervals, or lateral acceleration intervals.
- 26-27. (Canceled)

28. (Previously Presented) A method according to claim 18, wherein a warning regarding tire inflation pressure loss is issued when at least one rolling circumference difference ( $\Delta\text{DIAG}$ ,  $\Delta\text{SIDE}$ ,  $\Delta\text{AXLE}$ ) or at least one shift of the torsion natural frequency  $\Delta f_P$  exceeds a previously fixed coarse threshold.
29. (Previously Presented) A method according to claim 18, wherein a warning regarding tire inflation pressure loss is issued when the shifts of the torsion natural frequencies  $\Delta f_P$  of all wheels exceed a previously fixed fine threshold.
30. (Previously Presented) A method according to claim 18, wherein a warning regarding tire inflation pressure loss is issued when at least one rolling circumference difference ( $\Delta\text{DIAG}$ ,  $\Delta\text{SIDE}$ ,  $\Delta\text{AXLE}$ ) as well as at least one shift of the torsion natural frequency  $\Delta f_P$  exceeds previously fixed fine thresholds.
31. (Previously Presented) A method according to claim 30, wherein a warning regarding tire inflation pressure loss is issued only when the correlation between the rolling circumference differences ( $\Delta\text{DIAG}$ ,  $\Delta\text{SIDE}$ ,  $\Delta\text{AXLE}$ ) and the shifts of the torsion natural frequencies  $\Delta f_P$  exceeds a predetermined limit value which indicates tire inflation pressure loss with an appropriate likelihood.
32. (Previously Presented) A method according to claim 18, wherein in a joint warning strategy, the thresholds of the rolling circumference differences ( $\Delta\text{DIAG}$ ,  $\Delta\text{SIDE}$ ,  $\Delta\text{AXLE}$ ) for warning of tire inflation pressure loss are adapted depending on the shift of the torsion natural frequency  $\Delta f_P$ .

33. (Previously Presented) A method according to claim 18, wherein in a joint warning strategy, the thresholds of the rolling circumference differences ( $\Delta\text{DIAG}$ ,  $\Delta\text{SIDE}$ ,  $\Delta\text{AXLE}$ ) for warning of tire inflation pressure loss are adapted depending on the shift of the torsion natural frequency  $\Delta f_P$  and on the correlation between the rolling circumference differences ( $\Delta\text{DIAG}$ ,  $\Delta\text{SIDE}$ ,  $\Delta\text{AXLE}$ ), and on the shifts of the torsion natural frequency  $\Delta f_P$ .